



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,421	01/16/2002	Misao Kimura	FUJH 19.343	4291

26304 7590 03/22/2007
KATTEN MUCHIN ROSENMAN LLP
575 MADISON AVENUE
NEW YORK, NY 10022-2585

EXAMINER

CERVETTI, DAVID GARCIA

ART UNIT	PAPER NUMBER
----------	--------------

2136

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/053,421

Applicant(s)

KIMURA, MISAO

Examiner

David G. Cervetti

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments filed December 20, 2006, have been fully considered but are not persuasive.
2. Claims 1-16 are pending and have been examined.

Response to Amendment

3. The rejection of claim 1 under 35 U.S.C. 112, second paragraph, is withdrawn.
4. Contrary to Applicant's assertions, Examiner respectfully submits that Hardjono not only teaches using message authentication codes (MAC) but also teaches using public key encryption to perform and generate said MAC (col. 7, lines 52-67, col. 8, lines 1-46). Even assuming arguendo this is not what Hardjono intends to teach, Examiner respectfully submits that Hardjono at the very least provides the architecture to implement the claimed invention, Hardjono also provides the routers with key pairs associated to them and encryption units. Using this very simplistic interpretation of Hardjono, replacing the encryption scheme provided under this simplistic interpretation with another would have been obvious to someone of ordinary skill in the art. Hardjono teaches a router digitally signing (using a key) the messages prior to sending them to the next router (Hardjono, claims 1-10). **Applicant's arguments are not persuasive.**

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2136

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 4, and 10-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Hardjono.

Regarding claims 1 and 10, Hardjono teaches a communication network system having a central management device and a plurality of local area network systems, said central management device and said plurality of local area network systems being connected to each other, each of the plurality of local area network systems having a router and a terminal which are connected to each other via a local area network,

- said central management device comprising:
- a management database for storing at least one common key, each public key assigned to each router and a public key assigned to the central management device; and
- a central-side encryption unit for encrypting the common key by using each public key assigned to each router, and
- sending the encrypted common key to each router (column 5, lines 1-42);
- said router comprising:
- a first router-side decryption unit for decrypting the encrypted common key sent from said central-side encryption unit by using a secret key of the router;
- a storage unit for storing the common key after decryption by said first router-side decryption unit; and

- a router-side encryption unit for encrypting communication data to be sent from a first source terminal in a local area network system of the router to a first destination terminal in another local area network system, or communication data to be sent from the router to the central management device, by using the common key stored in said storage unit (column 5, lines 43-67, column 6, lines 1-49), and
- sending the encrypted communication data to another local area network or the central management device (column 6, lines 50-67, column 7, lines 1-52).

Regarding claims 11-13, Hardjono teaches a router disposed in each of a plurality of local area network systems which are connected to a central management device, the router being connected via a local area network to a terminal disposed in each of the plurality of local area network systems (column 5, lines 1-42), the router comprising:

- a decryption unit for decrypting an encrypted common key sent from said central management device, by using a secret key for said router, said common key being encrypted by using a public key for the router;
- a storage unit for storing said common key after decryption by said decryption unit; and
- an encryption unit for encrypting communication data to be sent from a source terminal in a local area network system of said router to a destination terminal in another local area network system, or communication data to be sent from said router to the central management device, by using the

Art Unit: 2136

common key stored in said storage unit (column 5, lines 43-67, column 6, lines 1-49), and

- sending the encrypted communication data to another local area network or the central management device (column 6, lines 50-67, column 7, lines 1-52).

Regarding claims 14-16, Hardjono teaches a central management device connected to a plurality of local area network systems each having a router and a terminal which are connected to each other through a local area network, the central management device comprising:

- a management database for storing at least one common key, each public key assigned to each router and a public key assigned to said central management device, said at least one common key being used by each router to encrypt communication data to be communicated between a terminal of a local area network system and a terminal of another local area network system, or between each router and the central management device (column 5, lines 1-42); and
- an encryption unit for encrypting the common key by using each public key assigned to each router, and sending the encrypted common key to each router (column 3, lines 13-55).

Regarding claim 2, Hardjono teaches wherein

- said central-side encryption unit encrypts the public keys and sends said encrypted public keys to each router (column 5, lines 9-30),

Art Unit: 2136

- said first router-side decryption unit decrypts the encrypted public keys sent from the central-side encryption unit by using the secret key of the router,
- said storage unit stores the public keys after decryption by said first router-side decryption unit (column 4, lines 20-67), and
- said router-side encryption unit selects the public key for a router of another local area network system or the central management device to be a destination from the public keys stored in the storage unit, encrypts the common key by using the selected public key, and sends the encrypted common key to another local area network or the central management device, together with the encrypted communication data (column 5, lines 1-42).

Regarding claim 4, Hardjono teaches wherein said router further comprises: a second router-side decryption unit for decrypting data sent from a second source terminal in another local area network system to a second destination terminal in the local area network system of the router, and sending the data after decryption to said second destination terminal (column 5, lines 1-67).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2136

8. Claims 3 and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardjono.

Regarding claims 3 and 5, Hardjono does not expressly disclose storing secret concealment terminal data indicating a pair of terminals requiring communicated data to be encrypted and communicating that data to the router. However, Hardjono teaches encrypting communication between routers and terminals. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use other encryption means with the system of Hardjono. One of ordinary skill in the art would have been motivated to perform such a modification to provide for more secure communications (Hardjono, column 9, lines 7-48).

Regarding claims 6-9, Hardjono does not expressly disclose updating the keys. However, Examiner takes Official Notice that updating keys for communication between parties was conventional and well known. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to update the keys used by Hardjono since Examiner takes Official Notice that it was conventional and well known.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Colvin, Sr (US Patent 6,041,123) teaches a router obtaining keys from a server.

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David G. Cervetti whose telephone number is (571) 272-5861. The examiner can normally be reached on Monday-Friday 7:00 am - 5:00 pm, off on Wednesday.

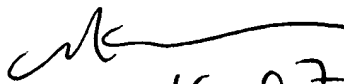
12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser G. Moazzami can be reached on (571) 272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2136

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DGC

NASSER MOAZZAMI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100


3,161,07